

## CLAIMS

1. A monoclonal antibody which can recognize an N-terminus peptide of an amyloid  $\beta$ , but not an amyloid  $\beta$  precursor protein.
2. The monoclonal antibody according to claim 1, wherein the N-terminus peptide of the amyloid  $\beta$  is a peptide shown by the following amino acid sequence (a):  
(a) DAEFRHDSGYEVHHQK (Sequence ID No. 1).
3. The monoclonal antibody according to claim 1, wherein the N-terminus peptide of the amyloid  $\beta$  is a peptide shown by the following amino acid sequence (b):  
(b) DAEFR (Sequence ID No. 2).
4. The monoclonal antibody according to claim 1, which is obtained by immunizing an animal with a bound substance of the N-terminus peptide of the amyloid  $\beta$  and a biological high molecular compound as a first antigen, immunizing the thus-immunized animal with a bound substance of another N-terminus peptide of the amyloid  $\beta$ , which is comparatively shorter than the peptide used for the first antigen, and a biological high molecular compound as a second antigen, and collecting the antibody from the animal.
5. The monoclonal antibody according to claim 1, which is obtained by immunizing an animal with a bound substance of a peptide shown by the amino acid sequence (a) and a biological high molecular compound as a first antigen, immunizing the thus-immunized animal with a bound substance of a peptide shown by the amino acid sequence (b) and a biological high molecular compound as a second antigen, and collecting the antibody from the animal:

(a) DAEFRHDSGYEVHHQK (Sequence ID No. 1) and

(b) DAEFR (Sequence ID No. 2).

6. The monoclonal antibody according to any one of claims 1 to 5, wherein the monoclonal antibody is a chimeric antibody.

7. The monoclonal antibody according to any one of claims 1 to 5, wherein the monoclonal antibody is a humanized antibody.

8. A kit for assaying amyloid  $\beta$  comprising a first reagent containing an antibody which can recognize the N-terminus peptide of amyloid  $\beta$ , but not amyloid  $\beta$  precursor proteins, and a second reagent containing an antibody which can recognize amyloid  $\beta$  (1-40) or amyloid  $\beta$  (1-42).

9. The kit for assaying amyloid  $\beta$  according to claim 8, wherein the antibody recognizing an amyloid  $\beta$  (1-40) or amyloid  $\beta$  (1-42) is an antibody recognizing the C-terminus peptide of the amyloid  $\beta$ .

10. The kit for assaying amyloid  $\beta$  according to claim 8, wherein the C-terminus peptide of amyloid  $\beta$  is a peptide shown by the following amino acid sequence (c):

(c) MVGGVV (Sequence ID No. 3).

11. The kit for assaying amyloid  $\beta$  according to claim 10, wherein the kit is for assaying amyloid  $\beta$  (1-40).

12. The kit for assaying amyloid  $\beta$  according to claim 8, wherein the

C-terminus peptide of amyloid  $\beta$  is a peptide shown by the following amino acid sequence (d):

(d) GVVIA (Sequence ID No. 4).

13. The kit for assaying amyloid  $\beta$  according to claim 12, wherein the kit is for assaying amyloid  $\beta$  (1-42).

14. A method for assaying amyloid  $\beta$  comprising causing an antibody which can recognize the N-terminus peptide of an amyloid  $\beta$ , but not amyloid  $\beta$  precursor proteins, and an antibody which can recognize amyloid  $\beta$  (1-40) or amyloid  $\beta$  (1-42) to react with an amyloid  $\beta$  in a sample to be assayed.

15. The method for assaying amyloid  $\beta$  according to claim 14, wherein the antibody recognizing an amyloid  $\beta$  (1-40) or amyloid  $\beta$  (1-42) is an antibody recognizing the C-terminus peptide of the amyloid  $\beta$ .

16. A method for preparing a monoclonal antibody of claim 1 comprising immunizing an animal with a bound substance of the N-terminus peptide of the amyloid  $\beta$  and a biological high molecular compound as a first antigen, immunizing the thus-immunized animal with a bound substance of another N-terminus peptide of the amyloid  $\beta$ , which is comparatively shorter than the peptide used for the first antigen, and a biological high molecular compound as a second antigen, and collecting the antibody from the animal.

17. A therapeutic agent for Alzheimer's disease comprising the monoclonal antibody according to any one of claims 1 to 7 as an active ingredient.

18. A deposition inhibitor of amyloid  $\beta$  (1-40) or amyloid  $\beta$  (1-42) comprising the monoclonal antibody according to any one of claims 1 to 7 as an active ingredient.

19. A method for treatment of Alzheimer's disease comprising administering the monoclonal antibody according to any one of claims 1 to 7.

20. A method for inhibiting deposition of amyloid  $\beta$  (1-40) or amyloid  $\beta$  (1-42) comprising administering the monoclonal antibody according to any one of claims 1 to 7.